

Please amend the application as follows:

IN THE CLAIMS

1. (currently amended) A replication-competent adenovirus vector for selective cytolysis of a target cell comprising,

a hypoxia responsive element (HRE) operably linked to an adenovirus gene essential for replication selected from the group consisting of E1A, E1B and E4, wherein said HRE comprises a binding site for hypoxia inducible factor-1 and said adenovirus vector results in selective cytolysis due to selective replication in said target cell.

8. (previously amended) The adenovirus vector of claim 1, wherein the HRE is human.

14. (previously amended) The adenovirus vector of claim 1, wherein said adenovirus gene essential for replication is operably linked to a composite regulatory element comprising said HRE and a tumor cell-specific transcriptional regulatory element (TRE).

15. (previously amended) The adenovirus vector of claim 14, wherein said tumor cell-specific TRE comprises a promoter.

16. (previously amended) The adenovirus vector of claim 14, wherein said tumor cell-specific TRE comprises an enhancer.

21. (previously amended) The adenovirus vector of claim 14, wherein said tumor cell-specific TRE comprises a prostate specific promoter and enhancer.

24. (currently amended) A composition comprising:

a replication-competent adenovirus vector of claim 1 comprising a hypoxia responsive element (HRE) operably linked to an adenovirus gene essential for replication selected from the group consisting of E1A, E1B and E4, wherein said HRE comprises a binding site for hypoxia inducible factor-1 and a pharmaceutically acceptable excipient.

25. (previously amended) An isolated host cell comprising the adenovirus vector of claim 1.

26. (previously amended) A method of propagating adenovirus *in vitro*, the method comprising:

introducing into a cell an adenovirus vector comprising a hypoxia responsive element (HRE) operably linked to an adenovirus gene essential for replication selected from the group consisting of E1A, E1B and E4, wherein said HRE comprises a binding site for hypoxia inducible factor-1 wherein said cell is maintained under hypoxic conditions *in vitro*, thereby expressing said adenovirus gene essential for replication;

wherein said adenovirus is propagated.

32. (previously added) The method of Claim 26, wherein said propagating of said adenovirus is cytotoxic to said cell.

33. (previously added) The method of Claim 32, wherein said cell is a tumor cell.

34. (previously amended) The adenovirus vector of claim 14, wherein said tumor cell-specific transcriptional regulatory element (TRE) is selected from the group consisting of a prostate-specific TRE (PSA-TRE), a glandular kallikrein-1 TRE (*hKLK2*-TRE), a probasin TRE (PB-TRE), an  $\alpha$ -fetoprotein TRE (AFP TRE) and a carcinoembryonic antigen TRE (CEA TRE).

35. (amended) A replication-competent adenovirus vector for selective cytolysis of a target cell, comprising:

an E2F-1 transcriptional regulatory element (TRE) operably linked to an adenovirus gene essential for replication selected from the group consisting of E1A, E1B and E4, wherein said adenovirus vector results in selective cytolysis due to selective replication in said target cell.

36. (previously added) The adenovirus vector of claim 35, wherein the E2F-1 TRE is human.

37. (previously added) The adenovirus vector of Claim 36, wherein said E2F-1 TRE comprises the nucleotide sequence set forth in SEQ ID NO:2.

38. (previously added) The adenovirus vector of Claim 35, wherein said E2F-1 TRE comprises a nucleotide sequence having at least 80% sequence identity with the sequence set forth in SEQ ID NO:2.

39. (previously added) The adenovirus vector of Claim 35, wherein said E2F-1 TRE comprises a nucleotide sequence that hybridizes under stringent conditions with the sequence set forth in SEQ ID NO:2.

40. (previously added) The adenovirus vector of Claim 35, wherein said adenovirus gene essential for replication is operably linked to a composite regulatory element comprising said HRE and a cell-type specific transcriptional regulatory element (TRE).

41. (previously amended) The adenovirus vector of claim 40, wherein said tumor cell-specific transcriptional regulatory element (TRE) is selected from the group consisting of a prostate-specific TRE (PSA-TRE), a glandular kallikrein-1 TRE (*hKLK2*-TRE), a probasin TRE (*PB*-TRE), an  $\alpha$ -fetoprotein TRE (AFP TRE) and a carcinoembryonic antigen TRE (CEA TRE).

42. (amended) A composition comprising:

a replication competent adenovirus vector of claim 35 for selective cytolysis of a target cell, comprising an E2F-1 transcriptional regulatory element (TRE) operably linked to an adenovirus gene essential for replication selected from the group consisting of E1A, E1B and E4; and a pharmaceutically acceptable excipient.

43. (previously added) An isolated host cell comprising the adenovirus vector of Claim 35.

44. (previously added) A method of propagating adenovirus *in vitro*, the method comprising:  
a replication competent adenovirus vector for selective cytolysis of a target cell, comprising an E2F-1 transcriptional regulatory element (TRE) operably linked to an adenovirus gene essential for replication selected from the group consisting of E1A, E1B and E4 wherein said cell is maintained under cell cycling conditions *in vitro*, thereby expressing said adenovirus gene essential for replication;

wherein said adenovirus is propagated.

45. (previously added) The method of Claim 44, wherein said propagating of said adenovirus is cytotoxic to said cell.

46. (previously added) The method of Claim 44, wherein said cell is a tumor cell.